

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A full coverage area spray nozzle comprising an oscillation chamber having an upstream end plate and a downstream end plate, an inlet aperture d_1 in said upstream end plate coupled to a source of pressurized liquid to be sprayed on said area and issuing a jet of liquid into said oscillation chamber, an outlet aperture d_2 at said downstream end for issuing a jet of said pressurized liquid to ambient, the walls of said oscillation chamber being defined by a line revolved about an axial line passing through said inlet aperture and said outlet aperture d_2 , said end plates have a diameter D and the distance between said inlet and outlet apertures is L and ratio L/D determines the spray pattern and is adapted to support a basic toroid flow pattern that remains captive within the confines of said oscillation chamber, said toroid spinning about its cross-sectional axis and being supplied energy from the jet of liquid issued into said oscillation chamber, said toroidal flow pattern having diametrically opposed cross-sections which alternate in size to cause the jet to move in radial paths and also in tangential direction and thereby choose a different radial path at each sweep, whereby there is a random sweeping of the jet issuing from said outlet aperture over said area.

2. (original) The nozzle defined in claim 1 wherein said downstream end plate is dome shaped.

3. (original) The nozzle defined in claim 1 wherein said downstream end plate is dimple shaped.

4. (original) The nozzle defined in claim 1 wherein said downstream end plate is flat shaped.

5. (original) The nozzle defined in claim 1 wherein said apertures d_1 and d_2 have sharp edges.

6. (original) The nozzle defined in claim 1 wherein the ratio L/D is adjustable.

7. (original) The nozzle defined in claim 1 wherein the distance L between said apertures d_1 and d_2 is adjustable.

8. (new) A full coverage area spray nozzle comprising an oscillation chamber having an upstream end plate and a downstream end plate, an inlet aperture d_1 in said upstream end plate coupled to a source of pressurized liquid to be sprayed on said area and issuing a jet of liquid into said oscillation chamber, an outlet aperture d_2 in said downstream end plate for issuing a jet of said pressurized liquid to ambient, the walls of said oscillation

chamber being defined by a line revolved about an axial line passing through said inlet aperture and said outlet aperture d_2 ,
10 said end plates having a diameter D and the distance between said inlet and outlet apertures is L and ratio L/D determines the spray pattern, said oscillation chamber causing a basic toroid flow pattern that remains captive within the confines of said oscillation chamber, said toroid spinning about its cross-sectional
15 axis and being supplied energy from said jet of liquid issued into said oscillation chamber, said toroidal flow pattern having diametrically opposed cross-sections which rotate about said axial line and alternate in size to cause said jet to move in a plurality of radial paths and thereby randomly traverse a different radial
20 path at each sweep, whereby there is a random sweeping of the jet issuing from said outlet aperture over said area.

9. (new) The nozzle defined in claim 8 wherein said downstream end plate is dome shaped.

10. (new) The nozzle defined in claim 8 wherein said apertures d_1 and d_2 have sharp edges.

11. (new) The nozzle defined in claim 8 wherein the ratio L/D is adjustable.

12. (new) The nozzle defined in claim 8 wherein the distance L between said apertures d_1 and d_2 is adjustable.

13. (new) A full coverage area liquid spray device comprising oscillation chamber, apertured end plates having a diameter D and the distance between the inlet and outlet apertures is L and ratio L/D determines the spray pattern and is adapted to support an oscillatory toroidal flow pattern that remains captive within the confines of said oscillation chamber and spins about its cross-sectional axis and being supplied energy from the jet of liquid issued into the oscillation chamber, said toroidal flow pattern has diametrically opposed cross-sections which alternate in size to cause the jet to sweep in a plurality of different radial paths and also in tangential direction and thereby choose a different radial path at each sweep, whereby there is a random sweeping of the jet issuing from the outlet aperture over the area.